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SUBJECT—

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TITLE

FOREST INSECT SURVEY
WESTERN WHITE PINE STANDS
ST. JOE NATIONAL FOREST
AND
POTLATCH TIMBER PROTECTIVE ASSOCIATION
1940

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1940

A systematic insect survey of the entire St. Joe Forest and adjacent privately owned timber was made during the fall of 1937. At that time no bark beetle infestation of a serious nature was recorded in any part of the national forest or Potlatch Timber Protective Association areas with the exception of the white pine stands in the Clarkia unit.

Again, during the past season a survey of a portion of the St. Joe National Forest and P.T.P.A. areas was made to determine, primarily, the status of the mountain pine beetle infestation in the stands of western white pine.

The following table will show the areas and acres surveyed and the data secured on each.

The attached photo map in the back will show the location and relation of the units surveyed.

Table 1
ST. JOE NATIONAL FOREST

Unit area	Acres	Infested trees per acre	Percent of stand	Total infested trees
Fishhook	6,400	.028	.2	179
North Fork	12,000	.017	.07	204
Twin Creek	3,200	.0	.0	0
	21,600	.026	.1	383

POTLATCH TIMBER PROTECTIVE ASSOCIATION

Unit area	Acres	Infested trees per acre	Percent of stand	Total infested trees
Floodwood Creek	12,000	.020	.07	140
Isabella Creek	12,000	.0	.0	0
Long Creek	14,000	.041	.1	574
Breakfast Creek	10,000	.018	.1	180
Gold Creek	10,000	.066	.1	660
Clarkia	9,600	.0	.0	0
Maries River	10,000	.0	.0	0
	77,600	.02	.07	1,554

As may be seen from the foregoing table, no serious infestation is present on any of the areas surveyed. In fact, in the two areas of Clarkia and Maries River, where some infestation was found in 1937, no infestation was recorded on a total of 583 sample plots examined in these areas.

Data and comments are given for each area separately in the following text.

ST. JOE NATIONAL FOREST UNITS

Fishhook Unit — Acres -- 14,000

Infested trees per acre .028
Percent of stand killed .2
Infested trees on unit 392.

The white pine stand of the Fishhook basin varies greatly in stocking and much of the timber is quite old. No serious infestation

in the white pine was recorded during the present survey. An area of dead spruce and alpine fir which was seen in the head of Fishhook Creek is believed to have resulted from an infestation of the hemlock looper which occurred several years ago.

North Fork Unit — Acres -- 12,000

Infested trees per acre	.017
Percent of stand killed	.07
Infested trees on unit	204.

The ownership in the North Fork area is about equally divided between private owners and the government. The stands are largely of old, overmature trees except on a few small areas. No infestation of any serious proportions has ever been recorded in this locality.

Twin Creeks Unit — Acres -- 3,200

Infested trees per acre	0
Percent of stand killed	0
Infested trees on unit	0

No systematic insect survey has ever been made in this area in the past. The white pine stand, although well stocked in small areas, is young and of a pole type, estimated to be 80 years old. No infested white pine were recorded on the sample plots examined, but a number of insect-killed Douglas fir were seen in the head of the drainage. Rather large areas where spruce and alpine fir that had been killed in the past were also found. This kill is no doubt the results of a looper infestation which spread through the entire region in the years of 1935-1938.

POTLATCH TIMBER PROTECTIVE ASSOCIATION UNITS

Floodwood Unit — Acres 12,000

Infested trees per acre	.02
Percent of stand killed	.07
Infested trees on unit	240.

Only a very low degree of infestation was recorded in the Floodwood drainage. The area is well stocked with mature pine which averages 28 trees per acre and as yet shows little damage from insect activity.

Isabella Unit — Acres -- 12,000

Infested trees per acre	.0
Percent of stand killed	.0
Infested trees on unit	0

Both the Isabella and Stoney Creek drainages are included in this unit. Only 145 10th-acre sample plots were examined in the unit, largely because there was no evidence of any insect damage and further work seemed unwarranted. Logging operations are soon to be started on the head of Stoney Creek and will probably later include the Isabella drainage. No insect activity was recorded on the sample plots examined and no evidence of insect-killed trees was seen by the investigator working in the area.

Long Creek Unit — Acres -- 14,000

Infested trees per acre	.041
Percent of stand killed	.14
Infested trees on unit	574.

About two sections near the mouth of the Long Creek drainage were logged a number of years ago. Insect-killed snags are in evidence near the western edge of the old cutting and indicate a rather severe past kill. However, the present infestation is not more than normal in the white pine stands.

A considerable number of insect-killed Douglas fir were seen in several parts of the drainage, especially along the ridge tops and on the southern slopes.

Breakfast Creek Unit — Acres -- 10,000

Infested trees per acre	.018
Percent of stand killed	.07
Infested trees on unit	180.

No serious insect infestations were recorded in the Breakfast Creek drainage. The white pine stand, which averages 26 trees per acre, seems to be in a very healthy condition. A recent burn in and adjacent to section 36 along the Bohel's cabin road presents an insect hazard by providing a rather large number of weakened trees. Logging operations, however, are taking some of the burned timber out, which will materially reduce the hazard.

Gold Creek Unit — Acres -- 10,000

Infested trees per acre	.066
Percent of stand infested	.12
Infested trees on unit	660.

On 301 sample plots that were examined in this unit, all of the infested trees occurred on one plot and it is felt that the data secured show an infested-tree-per-acre figure that is a bit too high. The area

is comparable to most of the other units surveyed in the vicinity except that it has a denser stocking of white pine per acre. The stand is young and thrifty and averages 54 green stems per acre.

Clarkia Unit — Acres -- 9,600

Infested trees per acre	.0
Percent of stand infested	.0
Infested trees on unit	0.

Although light mountain pine beetle infestations have been recorded in the Clarkia unit in the past, logging operations which have been in progress in the unit for several years have reduced the stands of the unit until only the two drainages of Merry Creek and Flewsie Creek remain uncut. Logging operations that are now in progress in Merry Creek are expected to continue until the stand has been logged, which under the present scale will take about five years. Insect infestation in the stands will probably not develop by that time, as there was no evidence of insect activity found in the area.

Maries River Unit — Acres -- 10,000

Infested trees per acre	.0
Percent of stand killed	.0
Infested trees on unit	0.

The Maries River drainage when surveyed as a part of the Clarkia unit in 1937 showed a light infestation of the mountain pine beetle. It was surveyed again during the 1940 season, but it was found that logging operations had cut all of the larger timber since the time of the last survey and only a scattered stand of small trees remain.

No infestation recorded and it is felt that the unit can be dropped from consideration during future surveys.

Respectfully submitted,

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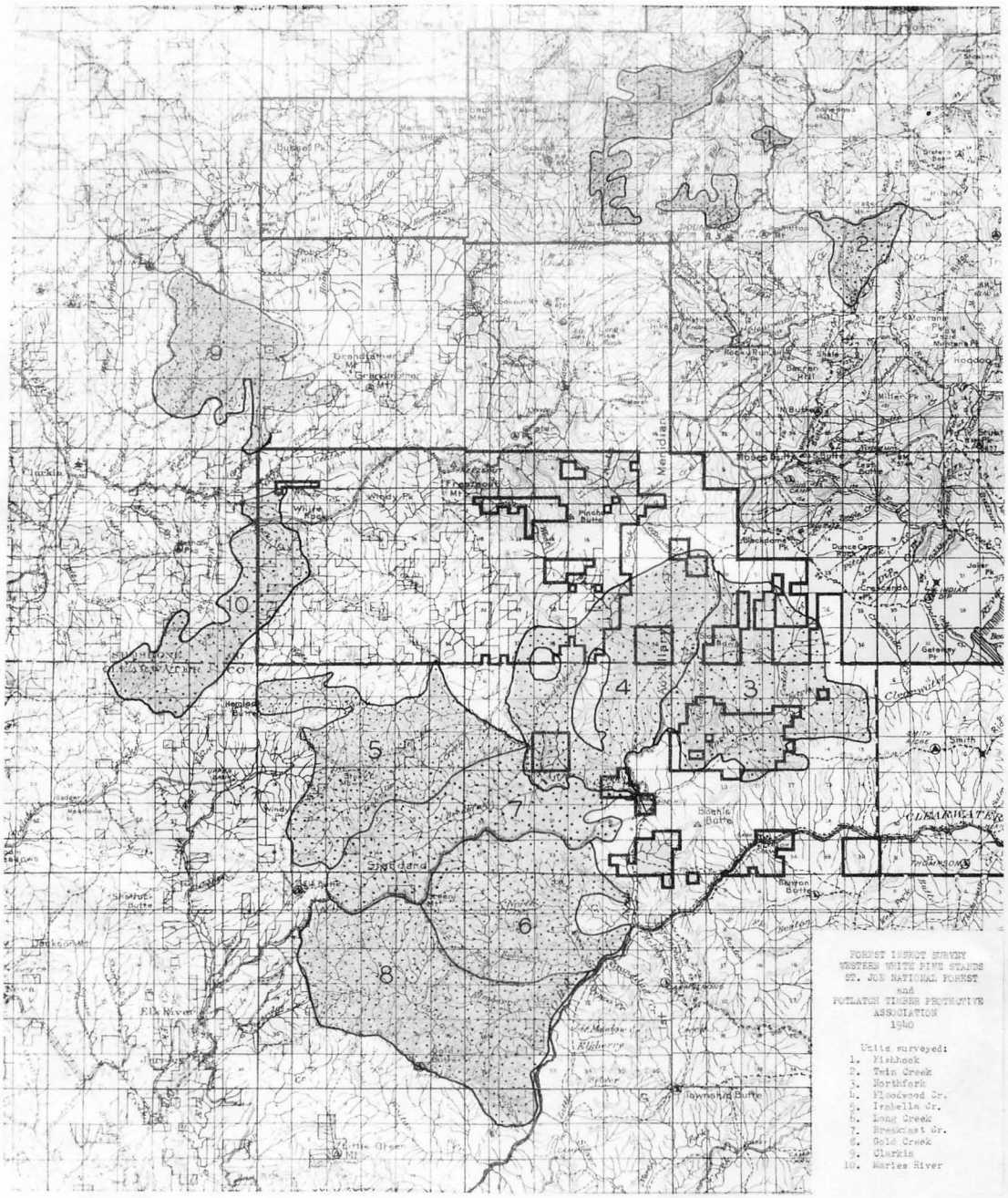

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